

### REMARKS

This is in response to the Office Action mailed on May 18, 2004, and the references cited therewith.

Claims 1, 5-8, 10, and 15 are amended, claims 4, 14, and 19-20 are canceled, and claims 21-24 are added; as a result, claims 1-3, 5-13, 15-18, 21-24 are now pending in this application.

#### Claim Objections

Claims 5-7 and 10 were rejected because the Examiner believed that these claims were written in method format or in a manner related to use. These claims have been amended such the structure recited in these claims are now "adapted to" achieve some result. Applicants believe this language is now acceptable and that the objections should be withdrawn, since these claims are no longer written in method format.

#### Double Patenting Rejection

Claims 1-20 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of co-pending Application No. 10/691,282.

Claims 1-20 were rejected under a non-statutory double patenting rejection, specifically U. S. Patent No. 10/691,282. Applicants do not admit that the claims are obvious or duplicative in view of Patent No. 10/691,282. However, a Terminal Disclaimer in compliance with 37 CFR 1.321(b)(iv) is enclosed herewith to obviate these rejections. Therefore, Applicants believe that the provisional rejection is no longer appropriate and has been overcome.

#### §103 Rejection of the Claims

Claims 1-3, 5-13, and 15-18 were rejected under 35 USC § 103(a) as being unpatentable over Bohland et al. in view of either Hillis or Todd et al. It is fundamental that in order to sustain an obviousness rejection that each and every element in the rejected claims must be taught or suggested in a single reference or in any proposed combination of references.

Bohland is directed to recapturing expensive metals from composite materials. Bohland is not directed to making the material safe for disposal or subsequent consumption by

encapsulating heavy metals within compositions of the materials. This distinction is important because it affects the type of materials that Bohland seeks to process and affects that which is the objects of its invention.

More specifically, Bohland discusses extracting silver from glass mirrors. Glass mirrors do not typically have toxic or hazardous heavy metals. This makes sense because the goal in Bohland is to extract and reuse expensive metals from materials, the goal is not to make the materials safe for disposal or subsequent consumption. Thus, Bohland is devoid of any teaching or any suggestions of teachings where the material is hazardous glass waste. Mirrors are not considered hazardous glass waste.

Additionally, Applicants would like to point out that Bohland does not define what a sufficiently small size is for the crushed materials. Applicants assert that this lack of teaching is significant because when dealing with hazardous glass waste, the crushed glass waste must be of small enough diameter sizes such that any remaining heavy metals which are toxic are encapsulated and not capable of leaching from the crushed glass waste. When sizes of the crushed glass waste are below or at the 2 mm diameter size, then the relative surface area of the resulting particles are increased, such that no naturally occurring force could rupture a single particle. Stated another way, a single particle with a diameter size of 2 mm or less would require a large (unnatural) force directed onto that single particle in order to rupture it and cause any remaining heavy metal to leach into the environment.

Bohland glosses over the sizes of the crushed materials, because Bohland is not concerned with and was not aware of the fact that at a certain point the small size serves as a permanent encasement for remaining heavy metals because of the physics involved. Bohland does not even define what the small sizes are and mentions it only in passing. Bohland did not appreciate what a small diameter size of 2 mm or less would result in and Bohland was not interested in the materials themselves or their disposal; rather, Bohland was interested in acquiring as much expensive metal from the materials as possible for reuse. In a sense, Bohland mines composite materials to re-acquire metals for re-use.

Thus, Applicants assert that the amended independent claims clearly and positively recite these differences between Bohland and Applicants' invention. Moreover, Applicants assert that one of ordinary skill in the art would not have been capable of reading Bohland in combination

with the other references in order to render Applicants' invention obvious. This is so, because the teaching in Bohland does not truly recognize the significance or diameter sizes at or below 2 mm, does not process materials that are hazardous glass waste, and is not directed to making the materials safe for disposal and subsequent consumption. Therefore, Applicants respectfully request that the rejection of the claims be withdrawn.

*Allowable Subject Matter*

Claims 4, 14, 19, and 20 were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants acknowledge and appreciate the allowance of claims 4, 14, 19, and 20. Claims 4, 14, and 19 were rewritten in independent format as newly added claims 21, 22, and 23, respectively. Moreover, claim 20 was rewritten as new dependent claim 24, which is dependent from claim 23. Claims 4, 14, 19, and 20 were cancelled. Therefore, claims 21-24 are now in condition for allowance.

**CONCLUSION**

Applicants respectfully submit that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicants' attorney at (513) 942-0224 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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9-7-04

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 7<sup>th</sup> day of September, 2004.

Name

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Signature

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